

L. Lee

1645

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/151,409A

DATE: 04/15/1999

TIME: 14:32:14

Input Set: I151409A.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

1 <110> APPLICANT: Dale, James B.  
2 <120> TITLE OF INVENTION: GROUP A STREPTOCOCCAL VACCINES  
3 <130> FILE REFERENCE: 481112.410  
4 <140> CURRENT APPLICATION NUMBER: US/09/151,409A  
5 <141> CURRENT FILING DATE: 1998-09-10  
6 <150> EARLIER APPLICATION NUMBER: US 60/058,635  
7 <151> EARLIER FILING DATE: 1997-09-12  
8 <160> NUMBER OF SEQ ID NOS: 16  
9 <170> SOFTWARE: PatentIn Ver. 2.0  
10 <210> SEQ ID NO 1  
11 <211> LENGTH: 36  
12 <212> TYPE: DNA  
13 <213> ORGANISM: Artificial Sequence  
14 <220> FEATURE:  
15 <223> OTHER INFORMATION: Description of Artificial Sequence: Product of  
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17 type 24 M protein DNA  
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20 <210> SEQ ID NO 2  
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30 <210> SEQ ID NO 3  
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32 <212> TYPE: DNA  
33 <213> ORGANISM: Artificial Sequence  
34 <220> FEATURE:  
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145 <223> OTHER INFORMATION: Description of Artificial Sequence: Product of  
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 152 <212> TYPE: DNA  
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 156 fusion gene sequence constructed from  
 157 streptococcal type 24, 5, 6, 19, 1 and 3 M protein  
 158 DNAs  
 159 <220> FEATURE:  
 160 <221> NAME/KEY: CDS  
 161 <222> LOCATION: (1)...(1149)  
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 164 Ala Cys Met Val Ala Thr Arg Ser Gln Thr Asp Thr Leu Glu Lys Val  
 165 1 5 10 15 96  
 166 caa gaa cgt gct gac aag ttt gag ata gaa aac aat acg tta aaa ctt  
 167 Gln Glu Arg Ala Asp Lys Phe Glu Ile Glu Asn Asn Thr Leu Lys Leu  
 168 20 25 30  
 169 aag aat agt gac tta agt ttt aat aat aaa gcg tta aaa gat cat aat 144  
 170 Lys Asn Ser Asp Leu Ser Phe Asn Asn Lys Ala Leu Lys Asp His Asn  
 171 35 40 45 192  
 172 gat gag tta act gaa gag ttg agt aat gct aaa gag aaa cta cgt gga  
 173 Asp Glu Leu Thr Glu Glu Leu Ser Asn Ala Lys Glu Lys Leu Arg Gly  
 174 50 55 60 240  
 175 tcc gcc gtg act agg ggt aca ata aat gac ccg caa aga gca aaa gaa  
 176 Ser Ala Val Thr Arg Gly Thr Ile Asn Asp Pro Gln Arg Ala Lys Glu  
 177 65 70 75 80 288  
 178 gct ctt gac aag tat gag cta gaa aac cat gac tta aaa act aag aat  
 179 Ala Leu Asp Lys Tyr Glu Leu Glu Asn His Asp Leu Lys Thr Lys Asn  
 180 85 90 95 336  
 181 gaa ggg tta aaa act gag aat gaa ggg tta aaa act gag aat gaa ggg  
 182 Glu Gly Leu Lys Thr Glu Asn Glu Gly Leu Lys Thr Glu Asn Glu Gly  
 183 100 105 110 384  
 184 tta aaa act gag aat gaa ggg tta aaa act gag gtc gac aga gtg ttt  
 185 Leu Lys Thr Glu Asn Glu Gly Leu Lys Thr Glu Val Asp Arg Val Phe  
 186 115 120 125 432  
 187 cct agg ggg acg gta gaa aac ccg gac aaa gca cga gaa ctt ctt aac  
 188 Pro Arg Gly Thr Val Glu Asn Pro Asp Lys Ala Arg Glu Leu Leu Asn  
 189 130 135 140 480  
 190 aag tat gag gta gag aac tct atg tta caa gct aat aat gac aag tta  
 191 Lys Tyr Asp Val Glu Asn Ser Met Leu Gln Ala Asn Asn Asp Lys Leu  
 192 145 150 155 160 528  
 193 cca tgg aga gtg cgt tat act agg cat acg cca gaa gat aag cta aaa  
 194 Pro Trp Arg Val Arg Tyr Thr Arg His Thr Pro Glu Asp Lys Leu Lys

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196	aaa att att gac gat ctt gac gca aaa gaa cat gaa tta caa caa cag			576
197	Lys Ile Ile Asp Asp Leu Asp Ala Lys Glu His Glu Leu Gln Gln			
198	180	185	190	
199	aat gag aag tta tct ctg cag aac ggt gat ggt aat cct agg gaa gtt			624
200	Asn Glu Lys Leu Ser Leu Gln Asn Gly Asp Gly Asn Pro Arg Glu Val			
201	195	200	205	
202	ata gaa gat ctt gca gca aac aat ccc gca ata caa aat ata cgt tta			672
203	Ile Glu Asp Leu Ala Ala Asn Asn Pro Ala Ile Gln Asn Ile Arg Leu			
204	210	215	220	
205	cgt cac gaa aac aag gac tta aaa gcg aga tta gag aat gca atg gaa			720
206	Arg His Glu Asn Lys Asp Leu Lys Ala Arg Leu Glu Asn Ala Met Glu			
207	225	230	235	240
208	gtt gca gga aga gat ttt aag aga gct ggt acc ttg tta gat cag gtt			768
209	Val Ala Gly Arg Asp Phe Lys Arg Ala Gly Thr Leu Leu Asp Gln Val			
210	245	250	255	
211	aca caa tta tat act aaa cat aat agt aat tac caa caa tat aat gca			816
212	Thr Gln Leu Tyr Thr Lys His Asn Ser Asn Tyr Gln Gln Tyr Asn Ala			
213	260	265	270	
214	caa gct ggc aga ctt gac ctg aga caa aag gct gaa tat cta aaa ggc			864
215	Gln Ala Gly Arg Leu Asp Leu Arg Gln Lys Ala Glu Tyr Leu Lys Gly			
216	275	280	285	
217	ctt aat gat tgg gct gag agg ctg tta caa gag tta aat atc gat gtc			912
218	Leu Asn Asp Trp Ala Glu Arg Leu Leu Gln Glu Leu Asn Ile Asp Val			
219	290	295	300	
220	gcg act agg tct cag aca gat act ctg gaa aaa gta caa gaa cgt gct			960
221	Ala Thr Arg Ser Gln Thr Asp Thr Leu Glu Lys Val Gln Glu Arg Ala			
222	305	310	315	320
223	gac aag ttt gag ata gaa aac aat acg tta aaa ctt aag aat agt gac			1008
224	Asp Lys Phe Glu Ile Glu Asn Asn Thr Leu Lys Leu Lys Asn Ser Asp			
225	325	330	335	
226	tta agt ttt aat aaa gcg tta aaa gat cat aat gat gag tta act			1056
227	Leu Ser Phe Asn Asn Lys Ala Leu Lys Asp His Asn Asp Glu Leu Thr			
228	340	345	350	
229	gaa gag ttg agt aat gct aaa gag aaa cta cgt aaa aat gat aaa tca			1104
230	Glu Glu Leu Ser Asn Ala Lys Glu Lys Leu Arg Lys Asn Asp Lys Ser			
231	355	360	365	
232	cta tct gaa aaa gct agt aaa att caa gaa tta gag gca cgt aag			1149
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242	fusion gene sequence constructed from			
243	streptococcal type 24, 5, 6, 19, 1 and 3 M protein			
244	DNAs			

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Original Text

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